

Application No.: 10/726,464

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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A non-compliant medical balloon, where the non-compliant medical balloon may be changed from a deflated state to an inflated state by increasing pressure applied to an interior surface of the balloon, said interior surface of the balloon having a predetermined longitudinal length, comprising:
 - a first fiber layer;
 - a second fiber layer over said first fiber layer such that the fibers of the first fiber layer and the fibers of the second fiber layer form an angle; and
 - a binding layer that secures the first fiber layer to the second fiber layer so that the first and second fiber layers are restricted from substantial relative movement during inflation and deflation coating the first fiber layer and the second fiber layer; and wherein the longitudinal length of the non-compliant medical balloon remains substantially unchanged when the balloon changes from a deflated state to an inflated state.
2. (Original) The non-compliant medical balloon of claim 1, wherein said first fiber layer comprises inelastic fibers.
3. (Original) The non-compliant medical balloon of claim 1, wherein said first fiber layer comprises a plurality of parallel first fibers.
4. (Original) The non-compliant medical balloon of claim 1, further comprising an adhesive layer adhering to said first fiber layer.

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5. (Original) The non-compliant medical balloon of claim 1, wherein said second fiber layer comprises a plurality of parallel second fibers.
6. (Original) The non-compliant medical balloon of claim 1, wherein said angle is substantially a right angle.
7. (Original) The non-compliant medical balloon of claim 1, wherein said angle does not change when the balloon changes from a deflated state to an inflated state.
8. (Original) The non-compliant medical balloon of claim 3, wherein said plurality of parallel first fibers are substantially parallel to the longitudinal axis of the balloon.
9. (Original) The non-compliant medical balloon of claim 5, wherein said plurality of parallel second fibers are substantially transverse to the longitudinal axis of the balloon.
10. (Original) The non-compliant medical balloon of claim 1, wherein said binding layer is a polymeric coating.
11. (Original) The non-compliant medical balloon of claim 10, wherein said polymeric coating is formed of a polymer.
12. (Original) The non-compliant medical balloon of claim 10, wherein said polymeric coating is formed of a copolymer.
13. (Original) The non-compliant medical balloon of claim 3, wherein said parallel first fibers each have a thickness of about 0.0005 inch.
14. (Original) The non-compliant medical balloon of claim 5, wherein said parallel second fibers each have a thickness of about 0.0005 inch.

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15. (Original) The non-compliant medical balloon of claim 5, wherein said parallel second fibers have a wind density of approximately 50 wraps per inch.

16. (Original) The non-compliant medical balloon of claim 1, wherein said angle is about ten degrees.

17. (Original) The non-compliant medical balloon of claim 1, further comprising a third fiber layer on said second fiber layer.

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